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ABSTRACT

The importance of well-planned, meaningful assessments is emphasized in planning effective educational programs for severely communicatively impaired individuals. Assessment and evaluation are defined, and key provisions of Public Law 94-142 and Public Law 99-457 are outlined. Several issues to be considered in establishing effective assessment/service delivery systems include: the nature of the population, the need for knowledgeable professionals, the need for material resources, and the need to plan for future environments. Several existing evaluation models and programs are briefly reviewed, followed by a description of the evaluation model at the Trace Center. At the Trace Center's Communication Aids and Systems Clinic, a team works with the client, the family, and others to select the most appropriate communication system for an individual. The evaluation process consists of referral, screening, case review, evaluation, implementation, and follow-up. Another Trace Center program with an evaluation component, the Communication Development Program, uses a similar evaluation process, though team input is sought from other sources and environmentally-based services are emphasized. Recommendations in developing an effective assessment process and a 26-item reference list conclude the paper. (JDD)

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OVERVIEW: EVALUATION/ASSESSMENT DEFINED AND IN RELATION TO P.L. 94-142 and P.L. 99-457

Brandenburg, S.

1987

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OVERVIEW: EVALUATION/ASSESSMENT DEFINED AND IN RELATION TO P.L. 94-142 AND P.L. 99-457

> "The process of communication is the foundation upon which all educational experience rests and out of which emerges the only known evidence of academic success or failure. Educational input will depend on the child's ability to receive, interpret, store, recall, and express the stimuli provided by his environment. To understand this concept is to recognize that communication skills are basic to all learning and to all living.... Educational systems have too often failed to stress these fundamental abilities as they have attempted to build superstructures out of the learning of more traditional academic subjects, all of which depend on successful communication." (McWilliams, 1969, page 149)

In order to plan an effective educational program, there must first be a well-planned, meaningful assessment that results in the collection of a wide range of information about that student. This information should provide the basis for intervention strategies that are a combination of remedial, accommodative, and ameliorative (Gearheart and Willenberg, 1973).

In The American Heritage Dictionary of the English Language (Morris, 1969), both 'assess' and 'evaluate' are considered synonymous with 'estimate' -- to form a tentative opinion about, to make a judgement based upon one's impressions. While 'estimate' lacks definitiveness, 'assess' and 'evaluate' imply considered and authoritative judgement and critical analysis. Specialists in the measurement and evaluation of human behavior are asked to estimate children's behavioral capabilities and achievements. Obviously, the accuracy of these estimates is critical, since the data is used to make significant decisions (Smith, 1969).

In this paper, the terms 'assessment' and 'evaluation' will be used interchangeably for the most part. There are subtle differences which should be kept in mind, however. 'Assessment' refers to the collection and interpretation of data using standardized and nonstandardized, formal and informal, direct and indirect procedures, techniques, and instruments (Yorkston and Karlan, 1986). This could be considered a part of the overall process of an 'evaluation.' This information is then used in judging decision alternatives. It is the concept of 'judgement' which would separate the two terms. The more important distinction between terms is that between 'assessment' and 'testing.' This distinction must be very clearly recognized. 'Testing' refers to the use of a standardized instrument that provides a quantitative characterization (Newland, 1963) using defined procedures in a particular way with particular materials (Yorkston and Karlan, 1986). The concept of 'assessment,' on the other hand, involves the total view of the individual interacting with his environment. Test results can assign a deceptively precise score to performance on a task, while assessment implies viewing the student's performance with respect to other variables, such as attitude, interests, motivation, perceptual and conceptual performance, acculturation, rapport with others, and the significant social influences. "Assessment is more than simple quantification of an individual's behavior. It does not merely label an individual... but instead attempts to explain why an individual obtains a certain score... embodies a qualitative characterization" (Smith, 1969, page 13).

The focus on functional descriptions useful in program planning rather than labels as the outcome of an evaluation is the primary differentiation between an educational and a medical model. Test scores, IQ numbers, and medical or psychological labels have little meaning if they offer no guidance for planning effective instructional procedures.

P.L. 94-142, the Education of All Handicapped Children Act of 1975, mandated that all students ages 3-21, regardless of handicapping condition, receive a free appropriate public education in the least restrictive academic setting consistent with his needs. Students with severe expressive communication disorders are at great risk of not benefiting from the educational experiences provided. These students are unable to participate in speaking interactions (oral response to questions, reading aloud, asking questions, group participation, requests for clarification, etc.). Writing tasks are also likely to be difficult, and the ability to independently produce written work is known to be vital to successful academic learning. Provision of communication aids can facilitate placement in the least restrictive educational setting for severely communicatively impaired children, ranging from regular classroom environments to increased interaction with peers (able-bodied and handicapped), thus providing a more normalized educational experience (Shane, 1986).

P.L. 99-457, Education of the Handicapped Act Amendments, signed by President Reagan on October 8, 1986, significantly expands services to infants, toddlers, and preschoolers. It reauthorizes P.L. 94-142, and now mandates services to children under six. All states are now required to provide special education to children three through five years old, and the Early Intervention for Handicapped Infants initiative of P.L. 99-457 mandates services for children birth through two years. States have three years to implement these programs from enactment of the legislation (GAR, August 1986, November 1986). Components of the statewide systems of "coordinated, comprehensive, multidisciplinary, interagency programs..." include procedures for multidisciplinary evaluations of the functioning of handicapped infants and toddlers, a comprehensive system of personnel development, identification and coordination of all available resources within the state from Federal, state, local and private sources; a

policy for contracting with service providers; and for receiving reimbursement from responsible agencies. Demonstration grants are authorized which "show promise of promoting a comprehensive and strengthened approach to the special problems of children" (GAR, November 1986). A discretionary program is also created to focus on applied technology (Word from Washington, November/December 1986).

In the educational setting, assessment has as its fundamental purpose the provision of information to be used in individual educational planning. The IEP, then, becomes the "design for learning" (Gearheart and Willenberg, 1980).

Specific parts of the rules and regulations of P.L. 94-142 under the section "Protection in Evaluation Procedures" are particularly relevant to the assessment of pupils with severe expressive communication disorders:

> "Testing and evaluation materials and procedures used for the purposes of evaluation and placement of handicapped children must be selected and administered so as not to be racially or culturally discriminatory.
>
> "State and local educational agencies shall ensure, at a minimum, that:
>
> "(a) Tests and other evaluation materials:
>
> > "(1) are provided and administered in the child's native language or other mode of communication, unless it is clearly not feasible to do so;
> >
> > "(2) have been validated for the specific purpose for which they are used; and
> >
> > "(3) are administered by trained personnel in conformance with the instructions provided by their producers....
>
> "(c) Tests are selected and administered so as to best ensure that when a test is administered to a child with impaired sensory, manual or speaking skills, the test results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure, rather than reflecting the child's impaired sensory, manual, or speaking skills (except where these skills are the factors which the test purports to measure);...

"(e) The evaluation is made by a multidisciplinary team...

"(f) The child is assessed in all areas related to the suspected disability, including, where appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities."

(Federal Register, Volume 42, No. 163, Tuesday, August 23, 1977).

The Council for Exceptional Children has provided guidelines related to these regulations which include suggestions to use criterion-referenced instruments and to use developmental checklists where appropriate (Exceptional Children, March 1977).

One other aspect of P.L. 94-142 should be considered as we proceed with a discussion of assessment of severely communicatively impaired individuals. The progression from assessment to Individual Education Plan continues to the Individual Implementation Plan. In addition to IIP components such as related services and teaching strategies/modalities, those materials identified by the implementers as essential to the unique learning needs of the child are specified. The IIP then shows the specific educational and related services (human resources) and special materials (material resources) needed by the student in order to achieve the full educational opportunity goal provided for in P.L. 94-142. With the increase in the quantity and quality of technological tools that can help meet the defined needs of a pupil, these tools should be considered as another contingency in the overall instructional plan (Gearheart and Willenberg, 1980).

ISSUES IN ASSESSMENT OF SEVERE COMMUNICATION DISORDERS AND TECHNOLOGY NEEDS

Yorkston and Karlan (1986) define assessment as it relates to augmentative communication as "a process during which communication problems are identified and

described, and a systematic plan for communication intervention is designed or re-evaluated" and leading "to the selection of the most appropriate aids, techniques, symbols, and strategies to meet current and future communication needs." The outcome of an assessment should be the design of an intervention program that seeks to reduce current disability (by compensating for present impairments) and to reduce further disability (by improving skills essential for later development of more effective communication).

A child's communication needs must be determined, components of the existing system evaluated, capabilities and skills assessed (cognitive, linguistic, motoric, sensory, perceptual, interactional), resources and constraints of the environment identified, and performance trials provided. This definition is given as a background to those issues which I have identified as critical in moving forward to establish effective assessment/service delivery systems for children with severe expressive communication disorders.

1. The Nature of the Population and Impact on Assessment procedures

Bradfield and Heifetz (1976) state that "If ever a population of children were inappropriate for traditional types of measuring instruments common to educational practice, it is the severely and profoundly handicapped.... The multiple impairments which characterize profoundly handicapped children make the use of instruments normed on populations without these impairments totally inappropriate. The most valid assessment data is that behavioral data which is obtained through a day-to-day, hour-to-hour, minute-to-minute, continuous monitoring system. The term assessment itself, when applied to the severely and profoundly handicapped, must be synonymous with terms such as teaching, education, and programming." (page 162)

The capabilities (cognitive, motoric, interactive, linguistic, sensory) of clients with severe expressive communication disorders vary widely depending on underlying neuropathology (the primary breakdown) and secondary deficits. Kamhi (1984) discusses the way children react to and compensate for a primary deficit as a determining factor in the nature and extent of secondary deficits. For example, if a child's interactions with the world are kept to a minimum (say, by a physical disability resulting in no clear expressive mode of communication), it is likely that in addition to the primary deficit (inability to communicate effectively), there will be a secondary motivational deficit because the child has become accustomed to a low level of interaction. Thus, any assessment and resulting recommendations must recognize this in program planning. Additionally, the status of sensory and/or behavioral factors and the type and amount of environmental support vary widely. Because of the diverse nature of the individuals who might benefit from augmentative systems, and the intricate cause-effect relationship between the characteristics of each individual and his/her environment, effective assessment is not a one-time event, but an on-going process. The phases of management (assessment, intervention/diagnostic intervention, measurement of outcome/re-evaluation) are closely related.

Another factor contributing to the need for an assessment model that recognizes the ongoing nature of the process is the importance of performance trials. Once components have been selected (devices, techniques, symbols, and strategies) in order to recommend an optimum communication system, they should be evaluated in trial periods of actual use before a final judgement about adequacy of selection is made. This allows time for motor learning to occur, to select additional vocabulary, and to document improvement in communication skills (Yorkston & Karlan, 1986).

Lynn Snyder (1983) likened language assessment to time and motion efficiency studies -- in a limited time, selected language behaviors are sampled, allowing an estimate to be made of an individual's typical performance, determine whether that meets his communication needs, and identify the aspects to which intervention should be addressed. This is difficult enough to do when you meet these assumptions: that the behaviors sampled are indeed representative; that they are behaviors that occur reliably among all individuals; that the behaviors possess concurrent and predictive validity; and that the standardization and normalization of measurement instruments allows a determination of significant discrepancy from that of peers. None of those assumptions are met when considering assessment of the majority of children who would benefit from augmentative communication systems. Thus, a one-day evaluation model becomes problematic. Many less formal assessment methods are used to collect information: checklists, rating scales, interview protocols, videotaped sample, task analyses, gathering of clinical data and testing of hypotheses formulated at initial assessment, criterion-referenced tests, descriptive observation, precise observation, comprehensive capability profiling, criteria-based profiling, and predictive profiling. Further development and verification of such measurement tools is a necessary thrust of future augmentative communication programs.

2. The Need for knowledgeable professionals

Assessment of severely communicatively handicapped children requires a multidisciplinary assessment team. The core of this team usually consists of a speech-language pathologist, a special educator, an occupational therapist, and the family. Consultative support should be available from an audiologist, a psychologist, a physical therapist, a rehabilitation engineer, and a computer programmer.

At the present time, there are not enough professionals with adequate training and/or experience in augmentative communication to meet the potential needs for effective state-wide evaluation/recommendation/training/follow-up systems, especially in non-metropolitan areas. Expertise is needed in awareness of available equipment, operation of equipment, techniques for various domains of skill development, functional application of systems in various environments, and so on. As Blackstone (1986, page ix) states in the preface to Augmentative Communication: An Introduction, "To serve the many needs of individuals with severe expressive communication disorders, specialized theoretical and practical preparation in addition to discipline-specific education is required." The Leadership Training in Augmentative Communication project, carried out at the American Speech-Language-Hearing Association from October 1984 to July 1986, has begun to address this need. Release time and training materials are needed for professionals who are already in the field, as well.

3. The Need for Material Resources

The need for equipment, the "tools," is basic at all phases of augmentative communication/assistive device management: for initial assessment, for extended performance trials, for use as the optimal functional tool for the individual. At present, this is one of the major areas of difficulty for those in need of assistive devices. The time between device recommendation and funding, then between funding and purchase, can span many months -- if the device is funded at all. The need to raise money through local service clubs, etc., can lengthen the process even further. This procedure also eliminates the performance trial phase in most cases, so that recommendation of a system must be made without that valuable information.

Rental units are available on a limited basis, but for some individuals, pursuing funding for such a trial use is difficult.

In most cases, at this conference, the aids being discussed are portable communication devices for individual use. The use of stationary computers with appropriate and input devices for use in special education classrooms and therapy settings, however, also needs to be considered, because of the flexibility they now offer in providing a wide variety of valuable educational and therapy experiences to students.

4. The Need to Plan for Future Environments

It is important that when evaluating, planning a program, and re-evaluating an individual with a severe expressive communication disorder, present and future needs be taken into account: communication needs, educational needs, and vocational needs. A functional system should permit continued development of the individual's educational, socio-communicative, vocational, cognitive, and/or motor skills. For example, there are children who, by using large (4" x 4") selection areas on a Unicorn keyboard as input to an Apple IIe computer running various programs, have developed academic skills through increased active involvement in the educational process, and have concurrently improved their motor skills to the point that they are now able to use a portable voice output device with 3/4" selection areas.

Contrast the previous example with that of a boy who came for an evaluation at the beginning of his senior year in high school. This young man was provided with a 1:1 aide who completed all his written work at school; his mother did the same at home. His speech was very difficult to understand, but had always been his primary mode of communication, and was intelligible when content was known and thus the possible utterances limited. He maintained a B average, including courses such as accounting, and had hopes of attending college. When the time had come for his DVR pre-

evaluation, however, he was told that he would not qualify because he did not have adequate skills. Testing showed that spelling and written language skills were at approximately 4th grade level. At the evaluation, he showed potential to use a headstick and a head-mounted light pointer, but a period of trial use was recommended to allow him to develop/improve the necessary motor skills to use either technique efficiently. Acquisition of the recommended aid took several months, so that the end of the school year was approaching by the time he received the equipment. If attention had been given to communication needs in future environments at all phases of his education, this young man could have continued on to college. In particular, this example points out the importance of considering written as well as conversational communication needs.

BRIEF OVERVIEW OF SOME CURRENT EVALUATION MODELS AND PROGRAMS

Yorkston and Karlan (1986) describe three levels of involvement. Primary level professionals serve the general caseload, and carry out assessments that require observation over time. Secondary level professionals function as local specialists. They would serve as manager for a number of nonspeaking clients and as the consultants for area primary level professionals. Tertiary level professionals are part of a specialized team located at regional centers. They would maintain a comprehensive, up-to-date knowledge of aids, techniques, symbol systems, and strategies. They would be available for comprehensive assessment of complex cases, personnel training, research (e.g.: the development of outcome measures, mentioned previously), advocacy, and consultation regarding issues such as funding and intervention programs. Involvement in program implementation would be limited by geographic location.

The **Pennsylvania Special Education Assistive Device Center** is a state-wide service of the Central Pennsylvania Special Education Resource Center, that is putting this type of model into practice. I am sure that Mary Brady will be describing in detail her progress in implementing this program, which includes long-term loans of communication aids/computer access tools.

The **Hugh McMillan Medical Center** in Toronto coordinates the Assistive Devices Program (ADP) of the Ontario Ministry of Health. In their model, level 1 sites are again primary/remote "clinics," function as primary referral sources, and are responsible for day-to-day program implementation, and have minimal prescriptive authority. Level 2A sites have a written agreement with ADP to authorize and prescribe devices on a limited basis. Level 2B sites are authorized to prescribe all but the most complex devices, and have ready access to technological support. The level 3 site has authorization to prescribe all devices, in-house positioning/seating facility, staff with major emphasis and training in augmentative communication, the ability to customize and maintain equipment, a university or educational affiliation with clinical teaching and research responsibilities, promotes networking of clinics, takes responsibility for program and clinical consultation to other programs and so on. The issue of "authorization" to prescribe devices relates to the automatic funding of a device by the Ontario Ministry of Health ADP as long as the recommendation is from an authorized facility.

Hennepin County Intermediate School District 287 serves students with low incidence handicaps (this includes vision impairment, hearing impairment, physical handicap, and mental retardation) who reside in the western suburban area of Minneapolis (Frush, 1986). Students are served almost exclusively in their home school settings. In addition to OTs, PTs, SLPs, vision and hearing specialists and special education

teachers, this district employs a computer programmer. Through their team approach, and with excellent administrative support, they have made impressive gains for their students, and have developed some very useful software tools in the process.

In California, the **UCLA Intervention Program** and the **Los Angeles Unified School District (Special Education)** have collaborated to look at the implementation of technology for children in special education programs. Team members have included educators, speech therapists, computer programmers, graphic artists, a research psychologist, physical therapist, occupational therapist, fundraiser and team leader. As the program continued, in-services were offered to LAUSD schools/teachers to help them become more comfortable with technology.

In September 1984, the Boston Public Schools, Department of Student Support Services, formed the **Special Education Technology Resource Center**. One component of the center is a software lending library. Another is a model adaptive hardware laboratory with a variety of input and output devices. Two of each device were purchased so that one remained in the lab for demonstration and training, while one could go out for loan for periods of trial use. A third component is staff training, and a fourth is evaluation of the most involved students, design of intervention plans, and technical support to the staff in charge of implementing the plan.

Looking at the five models just described, it should be noted that the first two are attempting to deal with the issue of effective service delivery over a wide geographic area, while the last three are programs implemented in large metropolitan areas.

The model not yet discussed is the traditional evaluation center, most often located at a hospital or university speech clinic where there is a staff/faculty member with expertise in the area of augmentative communication. The assessment model at the

Trace Center, to be described, is in this category, and functions basically in the same way as Yorkston and Karlan's tertiary level team.

EVALUATION MODEL AT THE TRACE CENTER

The Trace Center has two affiliated programs which provide evaluations: the Communication Aids and Systems Clinic (CASC), and the Communication Development Program (CDP).

CASC is part of the Department of Speech-Language Pathology, University of Wisconsin Hospital and Clinics in Madison, Wisconsin. The clinic team includes communication specialists, a position/seating specialist, and a communication aids specialist. The team works together with the client, family, and other significant others in evaluating the individual's needs and abilities to determine the most appropriate approach. Evaluations are on a fee-for-service basis, and are usually funded by sources such as Medical Assistance, private insurance, DVR, and school districts. CASC is located in the Waisman Center, as is the Trace Center. There is shared staffing between the two programs, and CASC has access to Trace engineers through a rehabilitation research services program for customization of equipment. Clients come from all areas of Wisconsin and surrounding states, with some clients travelling from more distant states and other countries.

The process of selecting a communication system for an individual can be viewed as a puzzle with three primary pieces. Each individual brings to the evaluation his or her own unique physical and mental abilities, as well as past experiences and future goals. All of these factors help determine the shape of the puzzle pieces. The other major component in the puzzle is the environment in which he or she lives. This includes the people with whom he interacts, as well as the physical situation in which he is

operating. For example, one person might be living in a nursing home, and another may be living at home and going to school daily. Those two situations put different constraints on the communication system for the two individuals. The people that the person has an opportunity to interact with will also have an impact on the most appropriate communication system. The third factor which has a bearing on the actual system selected is the other assistive devices that the individual may use daily (for example, crutches, wheelchairs, a head support system, straps, wrist splints or reaching devices). Remaining in the middle is a gap into which must be fitted a means for effectively and systematically communicating. Often, it is not a case of simply one particular device being appropriate, but of a variety of approaches being needed to meet the various communication needs of the person. For example, a child may use a pointer to indicate items on a communication board, use gestures to convey their ideas, and vocalize for yes and no and to gain attention. These are all part of his/her communication system. The critical variables to consider in examining the options available for this last piece of the puzzle, the communication system, are:

1) the means of indication, and

2) the symbol system to be used.

Additional factors come into play at a later point, once these two set central issues have been determined.

These puzzle pieces are all needed for communication. When the best fitting central piece (e.g., communication board or aid) has been chosen and put in place, it is like completion of a bridge. Now communication can flow back and forth over the bridge as long as people know the rules for crossing over. The aid is simply a tool or an enabler. People on both sides, however, must learn to use it effectively. Once the mechanics of operating the aid have been resolved, the ways in which it can be

incorporated into daily interactions must be stressed. Encouragement of further language development and increased expressive skills is necessary (DePape).

The following is a general description of procedures developed as part of the evaluation process at CASC. Detailed flow diagrams of CASC activities and procedures that have been put together by Donna DePape, clinical director of CASC, accompany this paper. [NOTE: can label as Figures 1, 2, and 3 if printing with the text].

Referral: Any person who does not use speech as a primary interaction mode, whose speech is not functional, who does not have a functional writing system, or who requires assistance in the area of computer access may be referred.

Screening: Prior to scheduling an appointment, preliminary information is obtained through written reports and telephone conversations to ensure that CASC is the most appropriate resource.

Case Review: Once the appointment is scheduled, additional information, medical reports, school/therapy reports and a videotape are requested. This information is reviewed at least one week before the appointment, and any arrangements for special transportation or hospitalization are made.

Evaluation: The evaluation will vary in length depending on the individual problems to be tackled. They average 4 to 6 hours. In some cases, the evaluation is divided between two consecutive days, but most often it is conducted in one day. Three areas of emphasis are: 1) positioning and seating, 2) communication skills and needs, and 3) communication aids and interfaces. Generally, the evaluation begins with positioning and seating because of its pivotal role in facilitating movement which will be needed for the subsequent sections. While individual specialty evaluations are undertaken, the

major part of the evaluation is done using a team problem-solving approach. Recommendations are discussed with the referred person and his/her family at the end of the evaluation, and a schedule for implementation is developed together.

Implementation: Depending on the recommendations made for the individual, equipment may have to be ordered and/or constructed as part of the total augmentative communication/interaction system. Subsequent visits are scheduled if necessary for adjustments to equipment to ensure proper fit. Recommendations involving training in the use of special graphic systems, the development of physical skills, or specific communication interaction strategies may need to be implemented cooperatively with professionals in the home community.

Follow-Up: Since the person's communication needs will change over time, as will physical size and physical abilities, re-evaluations are recommended to assess fit and function of all aspects of the system developed.

The other Trace program with an evaluation component is the Communication Development Program (CDP). CDP is funded by the Dane County Unified Services Board to provide environmentally-based services to developmentally disabled residents of Dane County, ages 0-4 and 18 and over, with severe expressive communication disorders. Because of this funding, there is no fee for clients meeting those criteria. The program shares staff with CASC and other Trace Center programs; however, it is staffed only by communication specialists. Other team input must be sought through referral to other sources. Rehabilitation engineering assistance is available through Trace engineers.

The evaluation process is basically the same as that described for CASC, with a few differences. One is the need for outside access and scheduling to create a team, mentioned above. Second is the CDP emphasis on environmentally-based services.

Evaluations, because clients are all within a contained geographic area, include observation of daily activities. The increased emphasis on vocational opportunities in community settings and the move out of state residential institutions have resulted in a greatly increased demand for services over the past two to three years. An underlying philosophy of both CDP and CASC is the importance placed on the assessment of the environment and the individual's communication partners. Studies have been done that support the critical nature of this factor, showing that partner training has resulted in increased interactions, while client training alone has had minimal effect on interaction patterns (Blackstone, 1986).

STRENGTHS AND WEAKNESSES

The following are strengths of a traditional, university/hospital-based evaluation model such as that represented by CASC.

1) Because of the affiliation with Trace Center, there is a great deal of expertise and experience available in areas of augmentative communication, writing systems, and computer access. The information program at Trace helps staff stay up-to-date on current and upcoming trends and available tools. Access to engineers on staff at Trace facilitates necessary modifications to equipment.
2) The emphasis on communication needs and environmental support is critical to any good evaluation program.
3) Positioning and seating is an integral part of evaluations.
4) The university affiliation allows training experiences for future professionals through guided experiences (practicums).
5) Comprehensive reports provide documentation of findings and recommendations for implementation.

6) The CDP program has as a particular strength its in environmental consultative focus, providing direct service as demonstration to other professionals and family members interacting with clients.

The following are weaknesses of a traditional model.

1) It is difficult to achieve adequate/consistent follow-up. Problems which contribute to this include the wide geographic spread of clients, the non-fundable nature of follow-up activities (letters, phone calls, etc.) in a fee-for-service structure, FTE limitations imposed by university regulations and hospital funding limitations, and scheduling/logistical problems when multiple evaluation sessions are necessary.

2) Staff drain and burn-out is a serious problem. Much of that relates to the general issue in #1. It is frustrating not to be able to follow up on clients more consistently. Many of the activities important to effective evaluation services fall under the category of "non-fundable time," and must be done on staff's own time. These include reports, phone follow-up, follow-up travel, planning, material preparation, equipment maintenance, new equipment orientation, and information dissemination/advocacy.

IMPLICATIONS/SUGGESTIONS/RECOMMENDATIONS

The possibility of state-wide service delivery mechanisms is an exciting one. I believe it is the critical step needed to move from evaluation and intervention that is widely diverse in quality and effectiveness for children in different locations (a problem felt especially in smaller cities and towns, in rural areas, and in states with large geographic areas). There are good, dedicated professionals in all locations, but until now their efforts have largely been on their own time. As long as this holds true, it is a hard fact that the number of professionals developing sufficient expertise to make a difference for our children with severe expressive communication disorders will remain limited. Technology and new methodology give immense instructional power, but without knowledgeable professionals to recommend appropriate devices and to

guide their application in meaningful, functional ways, their introduction is destined to result in frustration and failure. Too often, that has been the case in the past. The reason that this GLARRC initiative is exciting is that if state-wide systems are implemented, the support for communication system development and implementation will come from the place it must come from to work -- from the administrative level. If the support is not there, no amount of grassroots, person-by-person advocacy will make a lasting change, and there will continue to be only unpredictable pockets of knowledgeable staff. The guidance and support must come from that level so that all/any staff can/will carry through with implementation recommendations. The following are suggestions generated from this discussion of assessment, and the view of assessment as an integral part of continuing service delivery.

- The evaluation process should not be viewed as just equipment recommendation, but as the critical initial step in planning for functional application and incorporation into the individual's environment. An assistive device should be kept in perspective: not as the solution, but as a tool that will allow educators to deal with a primary deficit and remediate secondary deficits.
- The outcome of an evaluation should include information relevant to use of the optimal communication system for skill development (physical, academic, linguistic, social, etc.), to increasing opportunities for interaction, increasing opportunities to work independently, increasing expectations for communication, and making consequences more consistent.
- Not all evaluations will result in recommendation of a technologically based assistive device. Only one-third of the clients seen in CASC receive recommendations for an aid at an initial evaluation. More frequently, recommendations focus on skill development and increased opportunities for interaction using a low-tech system (e.g., communication board). The value of these systems and the time-intensive nature of their development must be recognized.

- We must look to future environments and maximize independent function. As stated by Bigge (1976, page 1), "Whatever their potential for participating in the society in which they find themselves, we want to help children learn those skills and adaptive behaviors needed for self-sufficiency." Providing a 1:1 aide to complete written work gets it done, but how does it prepare the student for functional application of knowledge in the future? Where will the aide be then? We must decrease reliance on such strategies that use a 1:1 aide as the output mechanism, and increase the utilization of aides for set-up and support of a system that will enhance transition to the next environment.

- Assessment should not be considered a separate activity, but an ongoing part of educational planning. The importance of performance trials and diagnostic therapy should be emphasized.

- More streamlined report formats, checklists and application notes should be a part of any evaluation model, to best utilize staff time and decrease staff burn-out.

- Time must be provided: time for material development, time for training, time for follow-up, time for system support. Rodgers (1985) describes the elements necessary for "holistic application;" that is, "making available a complete system where all the elements to use technology are in place." Out of the 19 elements listed by Rodgers, only <u>one</u> focuses on the hardware and software itself. The other 18 items relate to services that support the user and the system over time. It must be clearly recognized that providing the device alone is not enough -- there must be time and commitment to the functional use and support of that aid if it is to be a successful tool.

- Now that I have emphasized the support and not the tools, let me say that first there must <u>be</u> the tools. Without readily available assistive devices, assessment recommendations cannot be put to actual use in performance trials; skill development activities with equipment which will lead to recommendation of another system become difficult to implement; long time delays result in frustration. Communication aids should be considered as tools/material resources necessary for the implementation of IEPs. Note

this report from the 1985-86 Education of the Handicapped Law Report (DEC. 507:416).

> An eight-year-old cerebral palsy student in San Francisco who did not communicate orally had an Individualized Education Program (IEP) that included provision of a computer system and voice synthesizer to meet his communication needs. Although the IEP was signed in April the equipment specified in the IEP was not available until October. In addition, neither the teacher nor the classroom aide were trained to teach the child to use the computerized communication system. During the interim, the parents obtained speech-language pathology services from a private practitioner. The parents initiated the due process hearing to seek immediate implementation of the augmentative communication system and to obtain reimbursement for the services they had to obtain from a private practitioner.
>
> The hearing officer's decision was in favor of the parent. The hearing officer found that the school was not implementing the current IEP and that the school district was not providing an appropriate education because of its failure to provide the computerized communication system in a timely manner to train the teacher and aide to use the system in teaching the student.
>
> In a statement included with the decision, the hearing officer stated; "The purpose of having special education programs is to teach handicapped children such as the Petitioner. For each handicapped child an IEP is developed. When a properly developed IEP is followed, the child should derive some educational benefit. In this case, a critical element of the IEP is the implementation of a system of communicating with the Petitioner. If you cannot communicate with him you cannot teach him. The IEP team determined that to appropriately communicate with the Petitioner a computer system should be implemented. However, it is obvious that any such system is useless unless the people who are going to be working with the system are trained to use it. Therefore, in order to implement the

IEP and to teach the Petitioner, whoever works with him must be appropriately trained."
(GAR, August 1986)

CONCLUSION

In Lewis Carroll's Alice in Wonderland, Alice has a conversation with the Cheshire Cat.

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where --" said Alice.

"Then it doesn't matter which way you go," said the Cat.

"-- as long as I get somewhere," Alice added as an explanation.

"Oh, you're sure to do that," said the Cat, "if only you walk long enough."

The field of augmentative communication is a fairly new one, and is changing and growing rapidly. The quality of available communication aids continually improves. Knowledge of how to use these tools is developing. We are certainly getting somewhere. It is my hope that this planning conference will result in an understanding that it does matter 'which way we go' and in a clearer definition and plan for 'where we want to get to' so that all children with severe expressive communication disorders can benefit from these advances, and not have to wait until we get their just by 'walking long enough.'

Sara Brandenburg
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